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Review on: Design and Development Mobile App for Farmers in Agricultures Information

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ABSTRACT

Today mobile devices are used commonly by everyone, including the farmers and countryside people. Farming contributes almost around 17.01% of India's GDP. There are different elements that affected the agriculture development; Mobile app is very helpful for farmers to increase their farming to yield more profit. This paper explores how Mobile Apps of agricultural services have impacted the farmers in their farming activities and which more innovative agriculture services will provide through Mobile App. In India, there are enormous opportunities for utilizing the smart phones as a part of agribusiness improvement. Its utilization is vital for quick growth and easy access to information to Indian agriculturists, farmers and growers.

KEYWORDS: *Mobile app, Agricultural production, agriculture crops*

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1. INTRODUCTION

Agriculture and farming have been always a basic need for past, present and future. All human survival and culture flourish only when farming community is well developed. The mobile app is one of the platforms, where a farmer can get all solution and information in just one touch.

Smartphone apps revolutionized the connectivity and used for transferring agri-information to farmers. agriculture information and technology transfers are mostly done by village level workers, extension personals, scientists, universities etc. The data for farming like crop life cycle detail, seeds, crop selection, crop processes weather, pesticides, fertilizer etc. are accessible from a lot of different sources like newspaper, printed media, audio and, mobile, TV, internet, visual aids etc. but the structures and formats of data are different. Mobile based revolution is a package, which is led by smartphones, internet service providers and application developers.

Agriculture is the main occupation of the bigger part of Indian population. 60-70 % of Indian population is totally depends on agriculture sector for their living. The main difficult task for farmers is information access and management for the quantity of data and the complication of processes in precision farming. Mobile based applications are nearly verge of replacing the computer based services due to its cheaper cost and easy integration with various cellular services. Smartphones with advanced feature like high resolution cameras, greater memory, bright display, touch screen along with 3G or 4G speed internet attracted the users. So it's extremely hard for farmer to get exact information and to know variety of information which have distributed from diverse sources. Sometime several manual steps are essential to handing out data for translating data from one format to another format. These smartphones usages are rapidly increasing in many sectors like banking, medicine, shopping, lifestyle, games, artificial intelligence, etc. and agriculture in the same path of development but usage is very less.

Here we discussed the different types of app used for agriculture and agriculture related activities and technology transfer in future.

2. HYPOTHESIS OF THE STUDY

India is one of the largest producers of like crop life cycle detail, seeds, crop selection, crop processes weather, pesticides, fertilizer etc..

3. OBJECTIVE OF THE STUDY

The primary objective of this study is as given below

1. To study the Indian agricultural crop production i.e. like crop life cycle detail, seeds, crop selection, crop processes weather, pesticides, fertilizer

To study the Indian export of agriculture crop selection

4. CURRENT AGRICULTURE MOBILE APPLICATIONS:

There are thousands of applications present today in the area of agriculture. The utility depends upon the information, content and the mandate of app creation. Most

of the apps are useful only for specific information while others are multi in formant. Some are just calculative types and for academic usage. According to mobile application use in agriculture they were classified as:-

1. Agri-crop mobile application
2. Multi-informative mobile application
3. Calculative mobile application
4. Diagnostic mobile application
5. Agri- academic mobile application
6. Agri- professional mobile application

Agri-crop mobile application

These are mobile applications which are related to crop cultivation and production. It provides information of good package of practices, market, weather, etc.

A. Agri-app-

This app is developed by Criyagen and require registration. It provides the package of practices for various field crops like sugarcane, paddy, maize, watermelon, bottle guard, cotton etc. The growers for the analysis of any kind of disease and plant deformity in the development stages. It also provides information for time of initial symptoms which appears at the start of any disease and disorder (APS, 2016).

5. LITERATURE REVIEW

There are a variety of Mobile app developments in the marketplace, designed to make farming easy. Some mobile applications have designed to specifically provide information services to farmers. In this work various research paper and Mobile App have reviewed related to agriculture sector.

Author provides following some apps details used for monitoring and data information exchange purpose. 1) Mkisan application: This android app is designed and developed by CDAC Pune. This app is useful for assistances to farmers. 2) Shetkarimasik android app "ShetkariMasik" is extremely popular monthly magazine in the farming sector since 1965.Department of Agriculture in Maharashtra published Shetkarimasik mobile app. The important feature of this app is after registration process without use of internet user can upload information on the portal This system merges modern Internet technique and mobile communication systems with GPS for proficient and smooth farming. agriculture expert to solve their problems. Farmers can view diverse agriculture video through it.

Package of practices involves varieties used with well referenced information. This app provided users to get information in three languages along with important agricultural news for the farming communities and also providing the assistance by the experts through chat and call. Further the app consists of various useful video like pomegranate cultivation, mushroom cultivation, goat farming and dryland farming, etc. (Criyagen, 2016).

B. Kisan Yojana-

Kisan Yojana app is developed by Agriculture News Network (ANN) and till date, there are eight states of India namely Maharashtra, Gujarat, Karnataka, Andra Pradesh, Uttar Pradesh, Bihar and Jharkhand are included (accessed on 2 Feb 2016). This app provides information about the schemes and benefits provided by government to the farmers and rural people (ANN, 2016).

C. Weather app-

These applications are useful for the farmers for obtaining forecasts of the weather. Weather related apps are the most used applications in agriculture (Karetsos, Costopoulou, & Sideridis, 2014) e.g. skymet weather app. The app collects the data from meteorological stations and process into easily readable formats to the user. The informations come with various languages like Hindi, Marathi and five others (accessed on 2 Feb 2016). This app also provides the variation in temperatures, news about climate change in agriculture and weather parameter for next seven days. This app also helps farmer for planning of farm operations like harvesting, sowing etc. e.g. India satellite weather, weather pro, weather timeline etc (Skymet Weather, 2016).

D. Disease management app-

These kinds of applications are required for management of plant health and diseases for crops e.g. Plant health from APS. This app provides information on tomato and turf grass (accessed on 2 Feb 2016). It provides an interactive platform for farmers, gardeners and

6. GAP ANALYSIS

The researcher has reviewed various articles which are related to agriculture and development of mobile applications for farmers. Researcher also found that there are many mobile applications made for farmers in different countries related to diverse services but to fulfill ruler farmers demand researcher will design and develop user friendly mobile application which provides multiple features in one app like diverse information services as well as interaction platform for farmers and agriculture people along with information about organic farming. This will more beneficial to farmers to get all imperative information services and platform for interaction in one app. This mobile app will fulfill all the agricultural needs of the farmer in one touch on any time at any place.

7. CONCLUSION

India is the country which is mostly depended on agriculture. There are various new technology develop for agriculture. Agriculture is prime sector of importance. More than 50% of people are engaged in agriculture activity. To make agribusiness productive, smooth and respectable it is important that, it should be linked to recent technologies. All the imperative information and plans regarding farming is not timely reach to the farmers due to unfair management. The majority of the farmers do not know about uses of new technologies in agriculture. Thus, in order to bridge this gap between farmers and new technology as well as government aids to improve agricultural growth researcher will develop a novel solution. This mobile app will define the necessary procedure and model to make farmers aware about new diverse knowledge about agriculture and also help them to improve agriculture in our nation. Mobile application one of such technology that can be used directly in agricultural growth. Although this channel of information dissemination is in juvenile phase but it's advantages can be seen in near future. The strategies for expansion of application based information require expulsion of obstacles like better modest handsets, compatible smart phones, multilingual platform, subsidizes internet packs, regular trainings and awareness amongst farmers. Smartphones are the example of overcoming adversity of connecting the rural digital divide, bringing monetary advantages and acting as catalyst for social mobilization through improved communication.

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